

In the Claims

34. (Currently amended) A computer-implemented method for solving a current financial portfolio optimization problem inputted by a user of a computer system comprising the steps of:

storing, on a computer, a plurality of data groups each associated with one of a plurality of anticipated financial portfolio optimization problems, each of the data groups including ~~optimal~~ solutions to a corresponding anticipated financial portfolio optimization problem, each of the data groups further including input values and intermediate calculation values associated with the corresponding anticipated financial portfolio optimization problem, wherein said storage occurs before said current financial portfolio optimization problem is input;

~~solving, using said computer, the plurality of anticipated financial portfolio optimization problems;~~

compiling, using said computer, said solutions to produce a set of results from said solved anticipated financial portfolio optimization problems;

preparing and storing, on said computer, a plurality of look-up tables for identifying each of said results, the plurality of look-up tables containing equation names, RHS (Right Hand Side) values, and objective values pertaining to the plurality of anticipated financial portfolio optimization problems;

solving, using said computer, the current financial portfolio optimization problem using the stored results from said solved anticipated financial portfolio optimization problems, the solving step including the steps of:

selecting, using user-defined functions, at least one of the stored results using the look-up tables; and

determining whether or not the selected result contains ~~optimal~~ solutions to the current financial portfolio optimization problem;

wherein, if the determining step determines that the selected result contains ~~optimal~~ solutions to the current financial portfolio optimization problem, then the ~~optimal~~ solutions included in the selected result are output as optimal solutions to the current financial portfolio optimization problem; and

wherein, if the determining step determines that the selected result does not contain ~~optimal~~ solutions to the current financial portfolio optimization problem, then the selected result is modified using a search method, and the current financial portfolio optimization problem is iteratively solved using the modified data group to obtain ~~optimal~~ solutions to the current problem.

35. (Currently amended) A system for solving a current financial portfolio optimization problem inputted by a user of a computer system comprising:

a storage unit, in a computer, storing a plurality of data groups each associated with one of a plurality of anticipated financial portfolio optimization problems, each of the data groups including ~~optimal~~ solutions to a corresponding anticipated financial portfolio optimization problem, each of the data groups further including input values and intermediate calculation values associated with the corresponding anticipated financial portfolio optimization problem,

wherein said storage occurs before said current financial portfolio optimization problem is input;

and

an optimization unit in said computer, said optimization comprising:

~~means for solving the plurality of anticipated financial portfolio optimization problems;~~

means for compiling a set of results from said solved anticipated financial
portfolio optimization problems;

means for preparing and storing a plurality of look-up tables for identifying each
of said results, the plurality of look-up tables containing equation names, RHS (Right
Hand Side) values, and objective values pertaining to the plurality of anticipated financial
portfolio optimization problems;

means for solving the current financial portfolio optimization problem using the stored
results from said solved anticipated financial portfolio optimization problems, the solving means
including:

means for selecting, using user-defined functions, at least one of the results using
the look-up tables; and

means for determining whether or not the selected result contains ~~optimal~~
solutions to the current financial portfolio optimization problem;

wherein, if the determining means determines that the selected result contains ~~optimal~~
solutions to the current financial portfolio optimization problem, then the ~~optimal~~ solutions
included in the selected result are output as ~~optimal~~ solutions to the current financial portfolio
optimization problem; and

wherein, if the determining means determines that the selected result does not contain optimal solutions to the current financial portfolio optimization problem, then the selected result is modified using a search method, and the current financial portfolio optimization problem is iteratively solved using the modified data group to obtain optimal solutions to the current problem.